

AMENDMENTS TO THE CLAIMS

Claims 37-46 (Canceled)

66. (Amended) A method as set forth in claim [64] 65 wherein a position of an ignition key in the ignition switch is used to determine if the engine is in a start mode.

Claims 79-80 (Canceled)

86. (Amended) A method for controlling an internal combustion engine during the cold start of a multi-cylinder internal combustion engine having a fuel supply, a plurality of fuel injectors located adjacent to separate engine cylinders, a cold start fuel injector and heater fluidly coupled to the engine cylinders, and an air passageway having a pivotally secured throttle valve disposed therein, said method comprising the steps of:

determining if the engine is in a crank mode and supplying fuel to the engine cylinder from the plurality of fuel injectors [if the engine is in a crank mode] during engine startup;

determining if the crank mode has ended and supplying fuel to the engine cylinder for a predetermined period of time through the cold start injector if the crank mode has ended;

mixing the fuel from the cold start injector with air to produce an air-fuel mixture;

passing said air-fuel over said heater elements to cause the fuel to be vaporized;

supplying the vaporized air-fuel mixture to the engine cylinders; and

switching from fuel supplied by the cold start injector to fuel supplied by the plurality of fuel injectors after the engine reaches a predetermined condition measured by temperature or time.

90. (Amended) A method for controlling an internal combustion engine during the cold start of a multi-cylinder internal combustion engine having a fuel supply, a plurality of fuel injectors located adjacent to separate engine cylinders, a cold start fuel injector and heater fluidly coupled to the engine cylinders, and an air passageway having a pivotally secured throttle valve disposed therein, said method comprising the steps of:

initiating power to the heater for a predetermined period of time before the engine is started;

supplying fuel to the engine cylinders through the cold start injector;

mixing the fuel from the cold start injector with air to produce an air-fuel mixture;

passing said air-fuel over said heater elements to cause the fuel to be vaporized;

supplying the vaporized air-fuel mixture to the engine cylinder; and

determining if [a crank mode is over] the engine has started and the engine is in an idle mode and supplying a predetermined amount of fuel to the engine from the plurality of fuel injectors according to a predetermined engine coolant fluid temperature, while the engine is in the idle mode.

Claims 93-96 (Canceled)

97. (Amended) A method for controlling an internal combustion engine during the cold start of a multi-cylinder internal combustion engine having a fuel supply, a plurality of fuel injectors located adjacent to separate engine cylinders, a cold start fuel injector and heater fluidly coupled to the engine cylinders, and an air passageway having a pivotally secured throttle valve disposed therein, said method comprising the steps of:

determining if the heater meets a predetermined condition before the engine begins [a crank mode] engine startup and supplying power to the injector if the predetermined condition is met;

supplying fuel to the engine cylinders through the cold start injector;

mixing the fuel from the cold start injector with air to produce an air-fuel mixture;

passing said air-fuel over said heater elements to cause the fuel to be vaporized;

supplying the vaporized air-fuel mixture to the engine cylinders; and

switching from fuel supplied by the cold start injector to fuel supplied by the plurality of fuel injectors after the engine reaches a predetermined condition measured by temperature or time.

STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES

Following is the status of claims and support for the claim changes made in this amendment.

Claims 1-36 – Pending.

Claims 37-46 – Canceled.

Claims 47-78 – Pending.

Claims 79-80 – Canceled.

Claims 81-85 – Pending

Claim 86 – Amended. Support for this amendment may be found in the specification at column 7, line 51.

Claims 87-89 – Pending.

Claim 90 – Amended. Support for this amendment may be found in the specification at column 7, line 51.

Claims 91-92 – Pending.

Claims 93-96 – Canceled.

Claim 97 – Amended. Support for this amendment may be found in the specification at column 7, line 51.

Claims 98-100 – Pending.